

CLAIMS

5 I claim:

1. A cover system for covering a cargo area of a vehicle, the vehicle having a pair of opposed sidewalls, an end wall and a pivotally mounted gate defining the cargo area, said system comprising:

10 a cover member extending between the side walls of the vehicle;

an elongate track assembly mountable to an upper surface of the pair of sidewalls for coupling said cover member to the side walls of the vehicle and guiding said cover member between a first position
15 wherein said cover member covers and encloses the cargo area of the vehicle and a second position wherein said cover member is retracted providing access to the cargo area;

a plurality of spaced mounting members being mounted to said cover member and slidably coupled to said elongate track assembly;
20 and

at least one drive assembly being mounted to said cover member and at least one of said spaced mounting members for slidably moving said cover member between said first and second positions.

25 2. The cover system of claim 1, wherein said track assembly includes:

a pair of track members, each of said track members being mountable to and extending a length of a respective sidewall of the vehicle; and

30 a means of fastening each of said track members to the sidewall of the vehicle.

3. The cover system of claim 2, wherein each of said track members includes:

5 a pair of opposed side wall portions extending a length of the side walls of the vehicle, each of said opposed side walls portions defining a channel;

a pair of first longitudinal flange portions, each of said first longitudinal flange portions extending away from a respective opposed side wall portion and generally toward each other, an edge
10 of each of said first longitudinal flange portions defining an opening to said channel; and

a pair of second longitudinal flange portion extending away from a respective opposed side wall portion and generally away from each other wherein said means of fastening said track assembly
15 extends through each of said second longitudinal flange portions.

4. The cover system of claim 3, additionally including a longitudinal intermediate member being positionable between each of said second flanges and the sidewall of the vehicle for preventing
20 damage to each of the side walls of the vehicle.

5. The cover system of claim 3, wherein each of said spaced mounting members includes:

a post extendable through said cover member and through said
25 opening of each of said track members;

a first tab member being mounted to said post and positioned generally adjacent to said cover member; and

a second tab member being mounted to said post and slidably positionable in said longitudinal channel.

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6. The cover system of claim 1, wherein said at least one drive assembly comprises a pulley system having:

at least one motor having a motor shaft extending away therefrom, said motor being mountable to the sidewall of the vehicle and positionable nearer the end wall of the vehicle;

a first pulley being rotatably mounted to said motor shaft;

a second pulley being rotatably mounted to the sidewall of the vehicle and positionable nearer the gate of the vehicle;

a flexible line being mounted about said first and second pulleys;

a carriage member being mounted to and extending between said flexible line and said cover member for moving said cover member between said first and second positions; and

a means of actuating said motor, said means of actuating said motor being mountable in a cabin of the vehicle.

7. The cover system of claim 6, wherein said carriage member includes:

a bracket being coupled to said cover member; and

a coupling assembly being mounted to said bracket for coupling said bracket to said flexible line, said flexible line extending through and being coupled to said coupling assembly.

8. The cover system of claim 7, wherein said bracket includes:

a first flange portion being mounted to said cover member wherein at least one of said coupling members extends through said first flange portion of said bracket;

a second flange portion being mounted to said coupling assembly, said second flange portion of said bracket being orientated generally parallel to said first flange portion of said bracket; and

5 a coupling portion extending between and being coupled to said first and second flange portions of said bracket.

9. The cover system of claim 8, wherein said coupling assembly includes:

10 a shaft having first and second opposed ends, said shaft having a hole extending through said shaft wherein said flexible line extends through said hole; and

a fastening member extending through said shaft and selectively engaging said flexible line for fastening said carriage to said flexible line.

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10. The cover system of claim 1, additionally including a means of locking said cover member in said first position, said means of locking said cover member being mountable to the tail gate of the vehicle and extendable between the tailgate of the vehicle and said
20 cover member.

11. The cover system of claim 1, wherein said cover member comprises a generally flexible material such that when said cover member is in said second position said cover member has a plurality
25 of parallel folds.

12. The cover system of claim 1, wherein said cover member includes:

30 a first cover section having a top wall, a pair of sidewalls extending from said top wall, wherein each of said sidewalls is

slidably positioned in said track assembly, an end wall extending away from said top wall;

a second cover section having at least a top wall and a pair of opposed side walls, an end wall; and

5 at least one intermediate cover section having a top wall and a pair of opposed side walls, wherein each of said cover sections is telescopically disposable under each other.

13. The cover system of claim 12, wherein a width of each of
10 said cover sections tapers from the gate of the vehicle toward the end wall of the vehicle for permitting said cover sections to be telescopically disposed with respect to each other.

14. The cover system of claim 3, wherein said at least one
15 drive assembly comprises, a pair of retractable arms being coupled to and slidably positioned in said channel, said cover member extending between and being coupled to said pair of retractable arms for covering the cargo area of the vehicle.

20 15. The cover system of claim 14, wherein each of said retractable arm assemblies includes a plurality of telescoping arm segments telescopically coupled together, wherein said cover member is coupled to at least one of said arm segments.

25 16. The cover system of claim 15, wherein said plurality of arm segments include:

a first arm segment having a first end coupled to said track assembly and positioned generally adjacent to the end wall of the vehicle;

a second arm segment having a first end telescopically coupled to a second end of said first arm segment; and

a third arm segment having a first end telescopically coupled to a second end of said second arm segment, a second end of said third arm segment having a protruding portion extending away therefrom, wherein said protruding portion is slidably positioned in said channel in said track assembly, wherein said channel guides said protruding portion between said first and second positions of said pair of retractable arm assemblies, said cover member being coupled to an upper surface of said third arm segment.

17. The cover system of claim 2, wherein each of said track members has a break extending therethrough for defining a first track section and a second track section, wherein said first track section is pivotally couplable to the side wall of the vehicle such that when each of said retractable arm assemblies is in said first position, each of said first track sections and cover member are pivotally moveable with respect to the cargo area thereby permitting more access to the cargo area.

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18. The cover system of claim 17, additionally including a means of releaseably securing said first track section to said second track section, said means of releaseably securing each of said track sections together being coupled to an end of said second track section and releaseably couplable to an end of said first track section.

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19. The cover system of claim 14, additionally including a motor being mountable to the vehicle and operationally coupled to

said pair of retractable arm assemblies for moving each of said arm assemblies between said first and second positions;

a power supply being electrically connected to said motor for providing power thereto; and

5 a means of actuating said motor being mountable to the vehicle and electrically connected to said motor for selectively controlling a flow of power to said motor.

20. The cover system of claim 3, wherein said at least one
10 drive assembly comprises a rotating shaft system being rotatably mounted in said channel of at least one of said track members for moving said cover member between said first and second positions.

21. The cover system of claim 20, wherein said rotating shaft
15 system includes:

an elongate rotatable shaft having a pair of opposed ends being orientated generally longitudinally in said elongate channel, said cover member being coupled to said elongate shaft; and

at least one motor being operationally coupled to an end of said
20 elongate shaft for rotating said elongate shaft, wherein rotation of said elongate shaft moves said cover member between said first and second positions.

22. The cover system of claim 21, wherein said elongate shaft
25 has a ridge portion extending away from an outer surface thereof, said ridge portion extending about a circumference of said elongate shaft and extends along a length of said elongate shaft such that said outer surface of said elongate shaft has a generally screw configuration, wherein one of said spaced mounting members engages

said ridge portions such that rotation of said elongate shaft moves said cover member between said first and second positions.

23. The cover system of claim 21, additionally including a
5 means of actuating said motor being mountable to the vehicle and electrically connected to said motor for selectively controlling a flow of power to said motor.

24. The cover system of claim 21, wherein each of said
10 spaced mounting members extends through said cover member and is slidably positioned in said elongate channel.

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